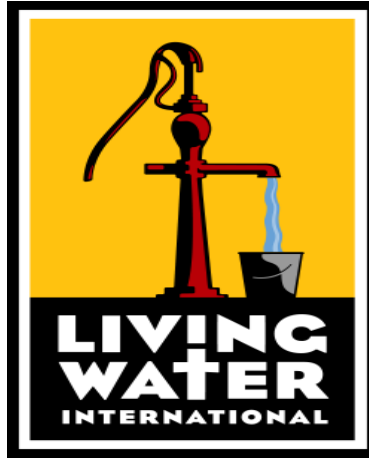




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**Final Evaluation Report**  
**Margibi WPA**  
**Margibi County**  
**Kakata and Gibi districts**  
**Liberia**

---

**August 2022**

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## Acronyms

|       |                                                |
|-------|------------------------------------------------|
| CLTS  | Community Led Total Sanitation                 |
| CWC   | Community Water users Committee                |
| FGD   | Focus Group Discussion                         |
| GoL   | Government of Liberia                          |
| HDI   | Human Development Index                        |
| JMP   | Joint Monitoring Programme                     |
| KAP   | Knowledge Attitude and Practice                |
| KII   | Key Informant Interview                        |
| LWI   | Living Water International                     |
| LWI-L | Living Water International Liberia             |
| M&E   | Monitoring & Evaluation                        |
| MoH   | Ministry of Health                             |
| MPW   | Ministry of Public Works                       |
| NGO   | Non-Governmental Organization                  |
| OD    | Open Defecation                                |
| ODF   | Open Defecation Free                           |
| PAPD  | Pro-poor Agenda for Prosperity and Development |
| SDG   | Sustainable Development Goal                   |
| SPR   | Sector Performance Report                      |
| UN    | United Nations                                 |
| VIP   | Ventilated Improved Pit                        |
| WASH  | Water Sanitation & Hygiene                     |
| WHO   | World Health Organization                      |

|      |                            |
|------|----------------------------|
| WinS | WASH in Schools            |
| WMC  | Water Management Committee |

## Acknowledgements

This Final Evaluation Report of the Margibi WPA project has been prepared for Living Water International Liberia (LWI-L) by the evaluation team at RuralNet Associates Ltd.

The Evaluation Team (ET) would like to thank LWI-L for providing them with an opportunity to conduct this final evaluation of the Margibi WPA project. The team sincerely thanks all who provided their valuable inputs, suggestions and timely feedback during this final evaluation.

Similarly, the team would like to express gratitude to Living Water International Liberia (LWI-L), in particular, the Director and the M&E staff for their support throughout the process- We are also thankful to the M&E Director, at the Africa Region Headquarters in Lusaka, for her feedback on this report. We also wish to register our appreciation to all field staff who assisted us with the data collection. Finally, many thanks to the respondents for their precious time and the information they provided.

### **RuralNet Associates Ltd<sup>1</sup>**

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<sup>1</sup> The Evaluation Team consisted of: Stephen Tembo-overall quality assurance; Solomon Tembo – Data Management/Analysis and Report writing; Rhoda Chiwele-sampling; Enock Ncube, KoBo

Lusaka, February 2022

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## Executive Summary

### Background to Final Evaluation Study

The LWI Liberia Final evaluation survey was an impact study conducted in April/May 2021 and covered 630 households in Gibi and Kakata districts of Margibi County in Liberia. It was preceded by the baseline and midterm studies. The final evaluation study was conducted to provide information about the impacts produced by the LWI Margibi County WASH (Water, Sanitation, and Hygiene) program. The Living Water WASH Program Area (WPA) model integrates and contextualizes the principles of water access, sanitation, hygiene, church mobilization, gospel proclamation, and sustainability. To increase program effectiveness in Christian witness, sharing of the gospel and disciple making. The fourth goal in the project's implementation strategies was to increase program effectiveness in Christian witness, sharing of the gospel and disciple making.

This final evaluation report presents the results of the study conducted in Margibi WPA, measuring changes in the same Key Performance Indicators (KPIs) from baseline. This report also provides a summary of the experience, lessons learned and recommendations, in terms of program implementation and WPA impact evaluation designs in the future.

The final evaluation employed Sequential Mixed Method approach and was done in the two districts of Margibi County (Kakata and Gibi districts). Solvins's Formula was used to calculate the sample size of 630 households at 4% margin of error while Probability Proportional to Size (PPS) was used for sampling communities in accordance with detailed instructions by the World Health Organisation (WHO)<sup>2</sup>.

In addition to the quantitative data, qualitative data was collected through key informant interviews (KIIs) and focus group discussions (FDGs). Qualitative data collection tools for the KIIs and FDGs were formulated immediately after the preliminary data analysis of the quantitative data was conducted. The data was collected from 5 community leaders, 2 pastors and 5 district officers dealing with WASH issues. At the institutional level LWI, an M&E Officer was interviewed to provide answers regarding the Key Performance Indicators (KPI).

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<sup>2</sup> [Microsoft Word - Steps in applying Probability Proportional to Size\\_ABierrenbach.doc \(who.int\)](#)

The structure of this report is based on the Organisation for Economic Cooperation and Development – Development Assistance Committee (OECD-DAC) five (5) evaluation criteria.<sup>3</sup> ; Relevance, Effectiveness, Efficiency, Sustainability, and Impact.

## **Key Findings**

### **Water Access**

- o The percentage of households accessing water from improved sources (at the least, using limited water sources), was 31.25 % at baseline. At final evaluation, the percentage increased to 79 %.
- o Out of all households, the percentage of those that were using basic services (Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing) was 67% at final evaluation.
- o With regards to water collection responsibilities, some improvement was recorded at final evaluation compared with the baseline results. At baseline, 89 percent of households said the responsibility for fetching water was borne by women and girls, 11 percent by men and boys. At final evaluation, men and boys had taken up more responsibility for fetching water, nearly doubling their share of responsibility to 21.6 percent.
- o At final evaluation, enumerators observed that 71.1% of households had at least one covered container for storing drinking water compared with 18.1% who reported storing their drinking water in covered containers at baseline. However, while at baseline, this data may have been collected by asking the participants, at final evaluation, enumerators were tasked to observe whether the household covered their drinking water containers.

### **Sanitation & Hygiene**

- o Compared to the baseline, there was improvement in the number of households with access to toilets. At baseline, only 8 percent of households had access to a toilet. By final evaluation this had increased to 29.8 percent. At baseline 40% of schools reported having toilets. At final evaluation, 96.6 percent had latrines. At final evaluation, all (100%) of health facilities had improved toilets.

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<sup>3</sup> Organisation for Economic Co-operation and Development – Development Assistance Committee, 'Evaluation of development programmes, DAC Criteria for Evaluating Development Assistance', web page, OECD. See <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>.

- o Presence of a hand washing station for use after using the latrine was reported by 5.2% of households at final evaluation. Out of those with handwashing facilities, the proportion reporting latrines with hand washing soap was 86.2% at final evaluation.

The situation was just as good in schools with 82.8 percent reporting hand washing facilities at final evaluation compared with 14.2 percent at baseline. In health facilities, 91% had hand washing facilities compared to 88% at baseline.

## **Religious Institutions**

- o At final evaluation, the majority (89%) of the sampled churches reported being involved in WASH activities. The same churches reported having a protected/ safe water point. At baseline, none of the institutions reported being involved in WASH activities.

## **Qualitative findings:**

- o The community cited the lack of money and inadequate awareness on sanitation practices as the reasons for the lack of hand washing facilities.
- o Despite the shortage of water treatment chemicals, the community indicated that the wells installed by LWI are still functioning well through participatory community initiative.
- o Since the end of the CLTS initiative by LWI, the community has pointed to a lack of capacity to sustain sanitation and toilet facilities against breakages, replacement or damage. This provides a possible explanation why the quantitative data shows that access to latrine seemed to peak at midterm and drop during the final evaluation study.

## **Conclusions, Lessons and Recommendations**

### **A. Increased access to safe water services**

**Main conclusion on water access:** It is evident that the (LWIL) Margibi County WASH Program has had significant impacts in the lives of the people of Margibi County. This can be seen through several indicators including access to safe water, water fetching responsibilities and safe storage. At 79% access to water from improved sources, the Margibi WPA may be on track to achieve the sustainable UN Development Goal 6

(SDG 6) which targets universal and equitable access to safe and affordable drinking water for all by 2030. The Government of Liberia SDG targets are also achievable.

However, infrastructure and services remain far inadequate to reach everyone with safe drinking water.

**Key lessons:** (i) The program coordinated and collaborated with local government and other stakeholders including the communities in hygiene promotion activities and provision of safe and improved water supply. This worked well to avoid duplication, though not to the extent where the program could avoid sustainability issues with infrastructure maintenance beyond the project period.

(ii) Impact evaluations should gather adequate baseline data about the same subjects as at final evaluation, using same definitions, concepts and methods of collection as the objective of conducting a baseline and a final evaluation is to compare the two to estimate the impact of the project. Like with other components of the Margibi County WASH Program, the baseline raw data was unavailable. The comparisons in the evaluation report were made based on information in the baseline report. Key indicators such as households' access to water by source were missing from the baseline report.

(iii) The LWI Liberia impact evaluation design can best be described as a non-experimental design. At best, it looks systematically at whether the evidence is consistent with what would be expected if the intervention was producing the impacts, and also whether other factors could provide an alternative explanation. However, using the non-experimental design, it is difficult to show a causal relationship between intervention and outcomes.

**Recommendation:** (i) For future programming, the LWIL should consider investing in long-term sustainability. Capacity to sustain water systems against future breakages, replacement or damage should be a priority. This could provide a critical opportunity for long term collaboration with government. (ii) WASH should not only be viewed from a health perspective. There are a number of other sectors such as livelihoods, environmental or climate change. These should be promoted in future WASH activities. Each perspective opens up new impacts and programmatic opportunities. (ii) For future programming, the LWIL should ensure the baseline and final evaluation surveys use same instruments, interview same subjects and sample size, use same definitions, concepts and collection methods. This will ensure that the only measurable change is the effect of the program interventions.

(iii) For future programming. The LWIL should consider the quasi-experimental impact evaluation design. The quasi-experimental design identifies a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics. It has a higher internal validity than the non-experimental type of research.

## **B. Improved sanitation and hygiene practices**

**Main conclusion on sanitation & hygiene:** There was a marked improvement in the proportion of households accessing any form of sanitation facility at final evaluation (29.2%) compared with baseline (8%). The project targeted 50% of the households having access to improved sanitation. Few households had handwashing facilities despite a slight improvement at final evaluation.

**Key lesson:** The socioeconomic impacts of the COVID-19 pandemic among households and individuals in Sub-Saharan Africa has been well documented. During this pandemic period, handwashing is being promoted as one of the most effective ways to prevent transmission of disease—not just the coronavirus (COVID-19), but also diarrhoea, cholera, and typhoid. The WASH programs, including the Margibi WPA project, may have benefited from these campaigns.

**Recommendation:** For future programming, LWIL projects must be sustainable to protect past and future investments. This can be achieved by building on the old and new partnerships, leveraging resources, capacities, and networks.

## **C. Church engagement/Christian witness**

**Main conclusion on Christian Institutions:** By partnering with churches, LWIL demonstrated that the local church, often found at the heart of a community, does not only uphold Christian beliefs, values and tradition, but can also be a force for positive change and development. Nearly all the churches surveyed indicated they were involved in water, hygiene and sanitation activities. The partnership LWIL had with church institutions had positive impact on the community. The churches achieved this by communicating messages about access to improved water, sanitation and hygiene. They were also able to demonstrate an improved facility or practice to the community.

**Key lessons:** The holistic mission of the church includes the whole of creation and the totality of human life. Its mission should therefore be oriented towards the satisfaction of spiritual needs and human needs. The human needs include love, material, health, and bodily needs. This is acknowledged in the Bible: “Suppose your brother or sister is without clothes and daily food. If one of you says to him, Go, I wish you well; keep warm and well fed, but does nothing about his physical needs, what good is it? In the same way, faith by itself, if it is not accompanied by action, is dead” (James 2:15-17). With regards

to WASH programs, local churches are best suited to mobilising their congregation and the wider community to engage in advocacy. The reach of the church is significant, with the potential to connect the grassroots to a much wider network. This is shown in the work done by the churches who partnered with LWIL.

**Recommendation:** For future programming, LWIL should continue to partner with church institutions. However, churches should go beyond demonstrating good hygiene and sanitation. They should provide technical and financial support to help communities attain improved sanitation and hygiene facilities, engage those in authority with and on behalf of communities to express their need to have improved hygiene and sanitation, and assist communities to maintain the gains achieved through improved hygiene and sanitation.

## **PART I: INTRODUCTORY**

### **1. PROGRAM BACKGROUND**

Living Water International started operations in Liberia in 2004 and has been working to provide sustainable water solutions in the country. In July 2012, it became a registered NGO as Living Water International Liberia (LWIL). The major activity performed by the organization, so far, has been the drilling of new wells, rehabilitation of hand dug wells, coupled with hygiene and sanitation, discipleship and community strengthening activities.

In a shift in its strategy and to move towards sustainability, LWI-L established a WASH Program Area (WPA) in Margibi County in the districts of Kakata and Gibi in 2012. The establishment of WPAs was based on LWI-L's Country Strategic Plan and focuses on population of high vulnerability status, and those desperately in need of safe drinking water.

#### **Key Objectives of the Program Intervention**

Living Water International, WASH Program Area (WPA) has three main objectives:

**Objective 1:** Increased access to safe water services

**Objective 2:** Improved sanitation and hygiene practices

**Objective 3:** Christian witness

A Theory of Change (ToC) for Living Water International (LWI) is meant to show the causal links between the organization's vision and its programmatic activities. It focuses on LWI desired outcomes and objectives for communities that lack safe water to work together toward an ultimate goal of increased wellbeing. ToC explores more about the problems LWI is trying to address and the theory for the solutions LWI can provide.

The ToC is both a description of the pathways of transformation LWI has seen in their work and an idealized vision they hope to see in every community. While change is rarely linear, and no two contexts are the same, LWI theory is that when they engage in certain activities as an organization, they expect to see certain results that build on top of each other to increase wellbeing (**Figure 1**).

## Theory of Change

Living Water International  
May 2018

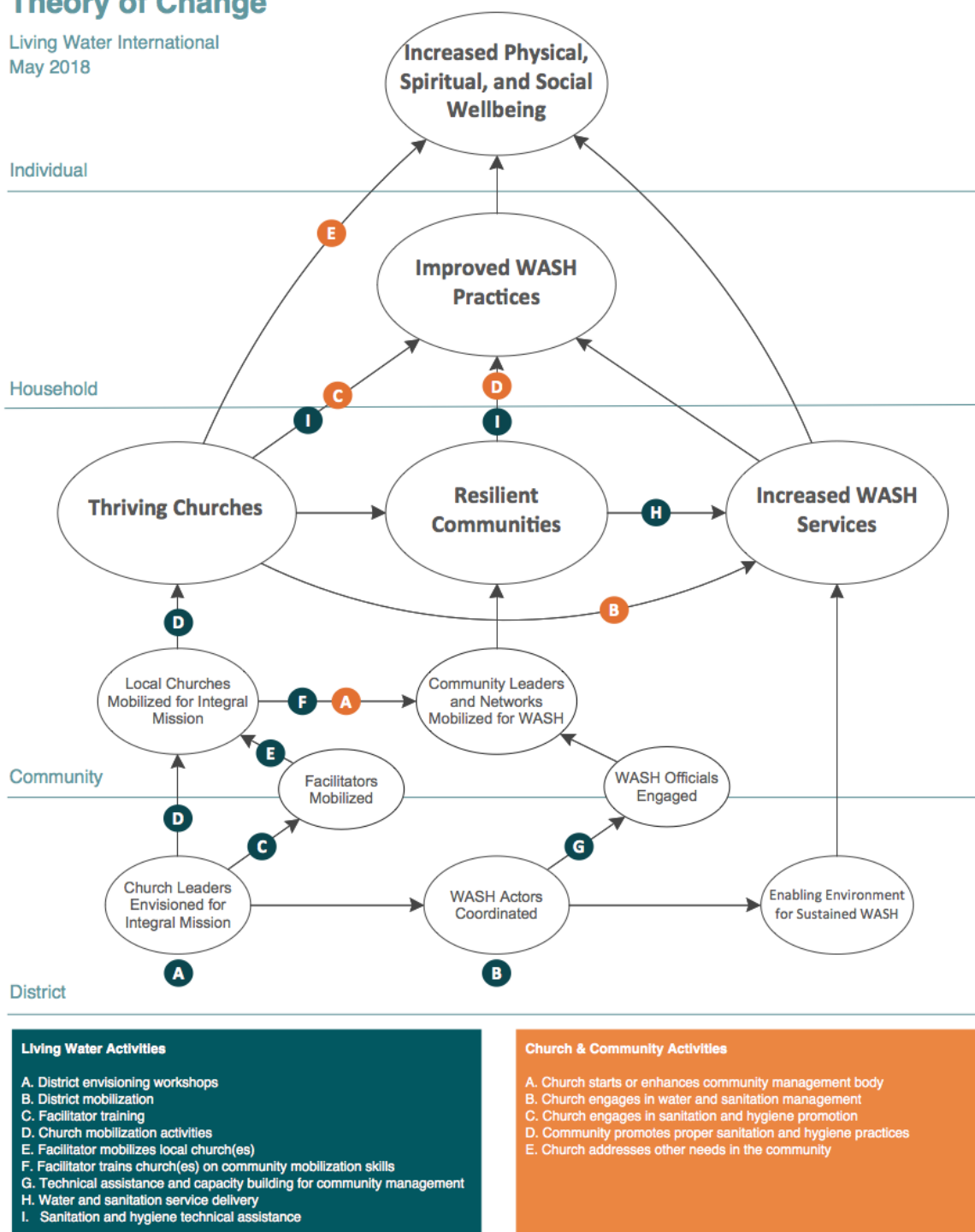


Figure 1 : LWI Theory of Change (ToC)

## 2. EVALUATION APPROACH AND METHODOLOGY

### 2.1 General Approach

The Margibi WPA final evaluation adopted globally accepted Organisation for Economic Cooperation and Development – Development Assistance Committee (OECD-DAC) five (5) evaluation criteria.<sup>4</sup> The 5 OECD criteria used were: relevance, effectiveness, efficiency, impact and sustainability which have defined the structure of this report. Laying out the report in this way has also helped the evaluation team to ensure that the criteria stipulated in the ToR are fully addressed.

### 2.2 Document Review

Literature review was a continuous process. Major documents included the following, among others;

- Terms of Reference for Final Evaluation for Margibi WPA
- Principles for Evaluation of Development Assistance, OECD – DAC, 1991
- Margibi WPA Baseline Assessment Report, 2013
- Margibi WPA Midterm Assessment Report, 2017
- LWIL. Margibi County WASH Program Proposal, 2014
- LWIL. Final WASH Qualitative Report, 2021
- Margibi County WPA Program Proposal
- Republic of Liberia, Agenda for Transformation—Steps Towards Liberia Rising 2030, 2012
- Government of Liberia. WASH Sector Performance Report, 2018

### 2.3 Research Approach

The Final Evaluation for Margibi was a 'mixed methods evaluation', a systematic integration of quantitative and qualitative methodologies and methods at all stages of an evaluation. Mixing methods overcomes the weaknesses inherent in each method when used alone. It also increases the credibility of evaluation findings when information from different data sources converges (i.e., they are consistent about the

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<sup>4</sup> Organisation for Economic Co-operation and Development – Development Assistance Committee, 'Evaluation of development programmes, DAC Criteria for Evaluating Development Assistance', web page, OECD. See <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>.

direction of the findings). In addition, qualitative methods are used in conjunction with quantitative methods to gain better insights into 'why' a program or policy has worked or not.

## 2.4 Research Design

The final evaluation used Mixed Methods Design. The evaluation started with quantitative data collection. After analysing quantitative data, qualitative data collection followed. Thus, the quantitative results informed the type of questions for the participants to help explain the gaps in the survey responses.

## 2.5 Sample Size

Solvins's Formula was used to calculate the sample size.

### 2.5.1 Sample size calculation using Solvins's Formula

#### Sample size Formula

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n is the sample size

N is the total population (PSU is household)

e is the desired level of precision (or acceptable error), taken at 4%

Substituting in the formula,

$$n = \frac{102954(N)}{1 + 102954(0.04)(e)^2} = 102955 \times 0.0016 = 165$$

$$102954/165 = 623.9636$$

Hence,

**Sample Size = 624 households**

## 2.6 Sampling Techniques for Quantitative Data

The Final evaluation employed a two-stage cluster sampling approach; sampling was done for both communities and households. By so doing, every household had a chance of being sampled.

### 2.6.1 Sampling communities and households in Margibi WPA

Multi-stage cluster sampling with Probability Proportional to Size (PPS) was used for sampling communities in accordance with detailed instructions by the World Health Organisation (WHO)<sup>5</sup>. A systematic random sampling method was used in selecting households while at household level, the head of household, spouse or any knowledgeable adult household member above 18 years was selected as a qualified respondent.

In order to arrive at the sampling details in Table 1, Excel was used to randomly sample the areas that will be visited using the “=RANDBETWEEN()” formula. Cluster sampling proportional to population size and stratified random sampling techniques were used to select the communities or clusters. The stratification has been used because there are 2 districts involved which have different populations and cluster has been applied because the communities are agglomerated.

The total number of clusters in the given sampling frame is 113, Gibi has 39 communities or clusters and Kakata has 74. The proposed 20 clusters have selected using cluster probability sampling. Gibi represents 35% of the clusters and 65% are represented by Kakata. Therefore, the 20 clusters have been proportionately shared. Consequently, 6 clusters in Gibi and 10 in Kakata will have 31 interviews to meet the total sample size of 624. The rest of the clusters will have 32 interviews. The following is a summary of the steps that were taken to arrive at the selected clusters.

1. All clusters were listed in excel
2. Each cluster was given a random number using the rand formula in an empty column.
3. The data was highlighted and sorted to avoid bias when selecting the clusters (The data gets reshuffled).
4. The population was listed cumulatively from the first cluster on the list to the end of the list (cumulative frequencies were generated)
5. A sampling interval was determined by dividing the population by the number of clusters in each strata (district). The first random number or sampling interval needs to be copied and pasted (copy and paste special) to avoid changing- random- numbers

---

<sup>5</sup> [Microsoft Word - Steps in applying Probability Proportional to Size\\_ABierrenbach.doc \(who.int\)](#)

when any action is taken in any cell. The starting point for selecting a cluster was decided by using the formula; =RANDBETWEEN(1,100) to select the 24 clusters in both districts (16 clusters in Kakata and 8 clusters in Gibi). The number of clusters in each district was arrived at proportional to population size (65% of 24 clusters for Kakata and 35% of 24 clusters for Gibi).

6. Once the first random number was generated for each district the cumulative population which holds the generated numbers were the selected clusters

7. The next cluster was selected by adding the generated first starting point to the sampling interval. The first starting point was generated using the random formula. The rest of the clusters are selected by adding the sampling interval to the previous cumulated sampling interval until all the 20 clusters were selected.

8. A simple random method will be used to select the households to interviews in the field. Every third household will be selected for interviews in areas where the households are 3 meters to about 100 meters apart. If the households are more than 100 meters apart, every household in sight will be interviewed. The starting point will be determined in the field and the enumerators will be given directions by the supervisors (North, West, East, South, etc.) to walk towards in order to avoid overlapping or possibly interviewing the same households more than once until 31 and 32 households have been interviewed in a cluster.

The starting point depended on the pattern of the how the households were arranged in a cluster. Household sampling would have been done if the sampling frame of the beneficiaries was available in order to address the concern about only interviewing the easy to reach households. However, the evaluation team ensured that all biases are avoided.

Table 1: Household Sampling Details

| District | Community    | Sample |
|----------|--------------|--------|
| Gibi     | Peter town   | 32     |
|          | Dinningta    | 33     |
|          | Trokon Town  | 31     |
|          | Tormah Town  | 30     |
|          | Worhn Town   | 32     |
|          | Ansata       | 32     |
|          | Sherman Town | 30     |
|          | Wioniee      | 1      |
|          | Father Camp  | 26     |
| Kakata   | Varney Town  | 31     |
|          | Tomue Town   | 30     |

|              |                        |            |
|--------------|------------------------|------------|
|              | Mc Carthy Farm         | 31         |
|              | Big- Fat Town          | 31         |
|              | Holder Farm            | 31         |
|              | Willie Town            | 30         |
|              | Nyanforla Town         | 31         |
|              | Pejoe Garage           | 31         |
|              | Kollie Kaine Town      | 31         |
|              | Gbaye Town             | 33         |
|              | Gbolokai Town          | 32         |
|              | Chinese Farm Community | 31         |
|              | Volaaya                | 1          |
|              | Tower Hill             | 8          |
|              | German                 | 1          |
| <b>Total</b> |                        | <b>630</b> |

Table 2: Qualitative Sampling Details

| District     | Qualitative survey |           |           |
|--------------|--------------------|-----------|-----------|
|              | Female FGD         | Male FGD  | KIs       |
| Kakata       | 7                  | 7         | 7         |
| Gibi         | 3                  | 3         | 7         |
| <b>Total</b> | <b>10</b>          | <b>10</b> | <b>14</b> |

Table 3: Number of Institutions

| Type of Institution | Number |
|---------------------|--------|
| Health Facility     | 11     |
| School              | 28     |
| Water Facility      | 32     |
| Church              | 9      |

## 2.6.2 Data Analysis

### Quantitative Analysis

After the data for a survey had been collected, they needed to be prepared for analysis.

First, a decision was made to use the SPSS software. SPSS is a powerful tool for manipulating and managing survey data. A major component of data preparation is data cleaning or editing. Inevitably, the survey responses contained identifiable errors of various forms, for example, responses that were inconsistent with other responses or that fell outside the range of possibilities. These errors were resolved before analyses could start.

SPSS is also as good with data analysis. Much of the analysis conducted was descriptive in nature. The results were reported in tabular form, with the table cells containing means, percentages or totals; sometimes, they were presented in graphical displays. No advanced techniques were applied as there was no examining of the relationships between variables, neither was there any exploring of possible cause-effect relationships.

### Qualitative Analysis

The qualitative study was undertaken primarily to complement the quantitative component. Qualitative data collection tools for the KIIs and FGDs were formulated immediately after the preliminary data analysis of the quantitative data was conducted. The components addressed in this analysis addressed the outliers identified after running the quantitative analysis and the emerging issues that required further understanding.

The two supervisors collected the qualitative data from 5 community leaders, 2 pastors and 5 district officers dealing with WASH issues. At the institutional level LWI: 1 M&E Officer was interviewed to answer output 4 of the Key Performance Indicators (KPI) which deals with MEAL activities. The data collection was done in five days in both districts soliciting the views of the public through FGDs and knowledgeable actors dealing with WASH activities mentioned earlier through KIIs. The table below shows the sample distribution of the two districts, and views of all these participants gathered in the narrative.

District Qualitative survey.

Table 3: Qualitative sample

| District     | Qualitative survey |           |           |
|--------------|--------------------|-----------|-----------|
|              | Female FGD         | Male FGD  | KIIs      |
| Kakata       | 7                  | 7         | 7         |
| Gibi         | 3                  | 3         | 7         |
| <b>Total</b> | <b>10</b>          | <b>10</b> | <b>14</b> |

## **2.7 Study Limitations**

Overall, the Margibi Final evaluation was successfully implemented. However, the following were the major limitations.

### **Non-experimental design used**

The main question of impact evaluation is one of attribution, isolating the effect of the program from other factors and potential selection bias. Causal attribution is an essential element of any impact evaluation. It enables an evaluation to report not only that a change occurred, but also that it was due, at least in part, to the programme or policy being evaluated.

The LWI Liberia impact evaluation design can best be described as a non-experimental design. Non-experimental impact evaluations do not involve a comparison or control group, a group that does not have access to the intervention. Intervention groups are compared before and after implementation of the intervention. Using the non-experimental design, it is difficult to show a causal relationship between intervention and outcomes convincingly. An evaluation must demonstrate that any likely alternate explanations for the outcomes are irrelevant.

## PART II: KEY FINDINGS

### 3.0 DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

Household characteristics affect the social and economic well-being of the members of the household. This section describes the general characteristics of the sample households, limited to what was collected from the questionnaire.

Table 1 shows the sample distribution by district and by rural and urban areas. The distributions are presented in Figure 1a and Figure 1b. Of the two districts, Kakata had 64.9% of the sample, while 35.1% was drawn from Gibi District

The sample comprised 57.6% rural households, 33.2% urban and the remaining 9.4% were from the semi-urban areas. Within the Gibi District, nearly all (98.6%) households were from the rural area. In Kakata District, about half the households (50.4%) were sampled from the urban areas, 35.2% from rural areas, and 14.4% from the semi-urban areas.

Table 4. Distribution of the sample population by district, rural/urban, respondent sex

| District | Number of Households | Percent share | Rural (%) | Urban (%) | Semi-urban (%) | Male-respondent (%) | Female-respondent (%) | Total |
|----------|----------------------|---------------|-----------|-----------|----------------|---------------------|-----------------------|-------|
| Gibi     | 221                  | 35.1          | 98.6      | 1.4       | 0.0            | 43.9                | 56.1                  | 100   |
| Kakata   | 409                  | 64.9          | 35.2      | 50.4      | 14.4           | 38.6                | 61.4                  | 100   |
| Total    | 630                  | 100.0         | 57.5      | 33.2      | 9.4            | 40.5                | 59.5                  | 100   |

Figure 2. Percent share of sample households by district

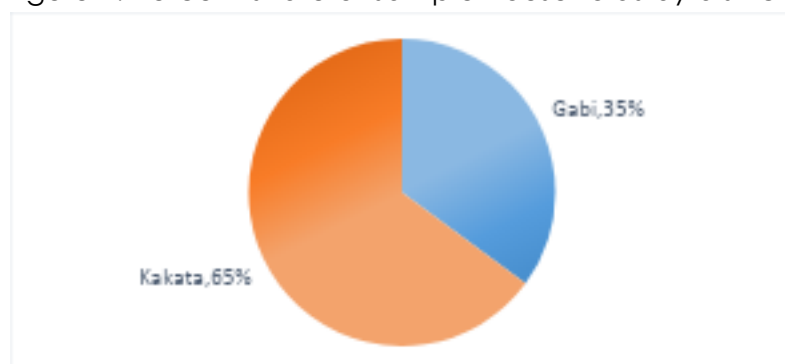


Figure 2 . Percent share of sample households by district

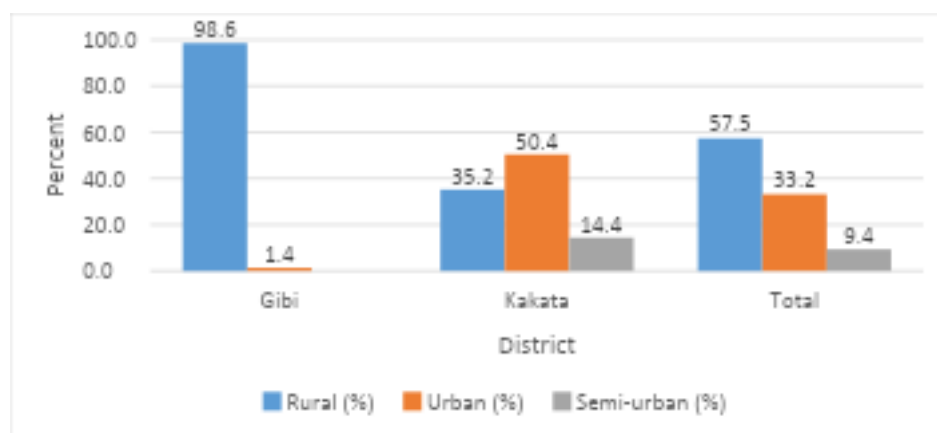


Figure 3 Percent share sample households by district, rural/urban

## Sex of respondent

The figures below show that, overall, 59.5 percent of the sample were female respondents and 40.5 percent were male respondents. The male and female samples were similarly distributed across the two districts.

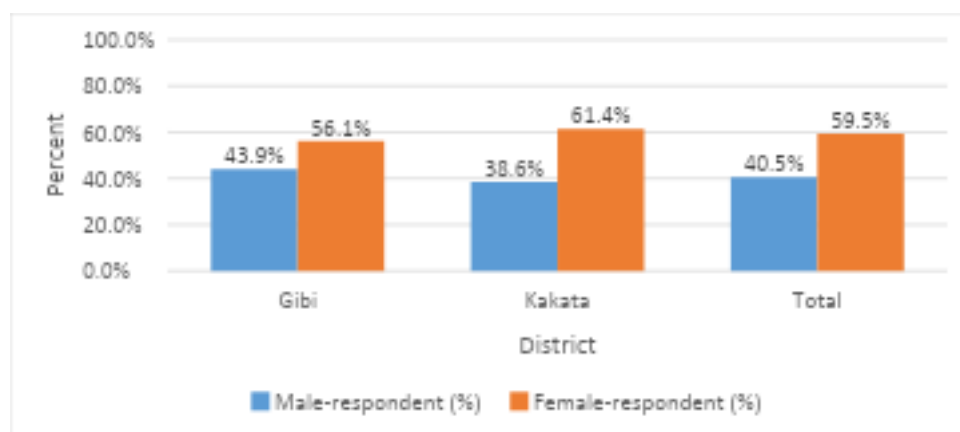


Figure 4. Percent share sample households by district, sex of respondent

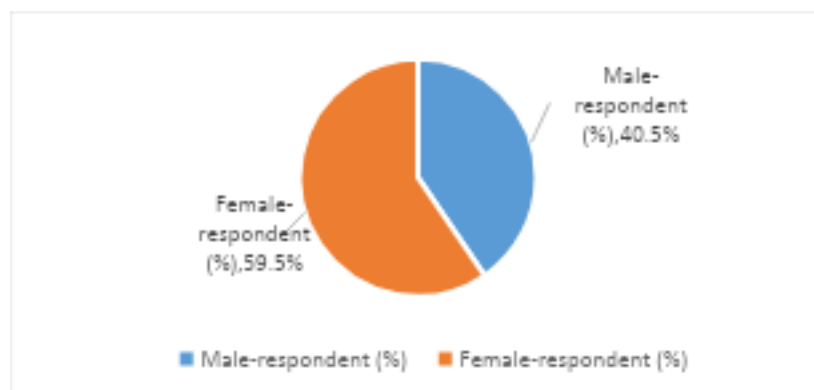


Figure 5. Percentage share of female and male respondents

### **Age of respondent**

Most respondents – over 75 percent - were individuals aged between 18 and 55. The elderly respondents (i.e., those aged 65 years and older) constituted 12.2 percent. Only 1.9 percent of respondents were below the age of 18, between 12 and 17 years of age.

### **Education level of respondent**

The respondents were asked what their highest level of education completed was. Respondents who completed a college or university or higher, may answer questions differently than those whose education ended at secondary or lower level of education.

The highest proportion, 47 percent, of respondents had attained primary school level of education, followed by those who had never had any education, at 36.2 percent. Only 15.6% of respondents ever completed secondary school level and just 1.3 percent attained tertiary level.

### **Marital status of respondent**

A question on their marital status was asked of respondents in the survey. Table 2 shows, among other results, the percentage distribution of the respondents aged 12 years and above by marital status. Fifty-one percent of the respondent were monogamously married with just 1 percent in polygamous marriage. Only 1.9 percent were divorced, and 7.1 percent widowed. Respondents who were never married constituted 34.3 percent of all respondents.

### **Religion of respondent**

Overall, 91.6 percent of all respondents identified themselves as Christians, 4 percent as Muslims and 3.5 percent as non-religious.

Table 5. Summative demographic information (Gibi & Kakata)

| Age of Respondents               |            |            |             |              |
|----------------------------------|------------|------------|-------------|--------------|
| Age Range                        | Gibi       | Kakata     | Total count | %            |
| 12-17                            | 3          | 9          | 12          | 1.9          |
| 18-25                            | 35         | 73         | 108         | 17.1         |
| 26-35                            | 52         | 83         | 135         | 21.4         |
| 36-45                            | 60         | 76         | 136         | 21.6         |
| 46-55                            | 35         | 62         | 97          | 15.4         |
| 56-65                            | 22         | 40         | 62          | 9.8          |
| 66-75                            | 10         | 17         | 27          | 4.3          |
| 76-91                            | 4          | 46         | 50          | 7.9          |
| Not stated                       |            | 3          | 3           | 0.5          |
| <b>Grand Total</b>               | <b>221</b> | <b>409</b> | <b>630</b>  | <b>100.0</b> |
| Sex of Respondents               |            |            |             |              |
| Sex                              | Gibi       | Kakata     | Total count | %            |
| Female                           | 97         | 158        | 255         | 40.5         |
| Male                             | 124        | 251        | 375         | 59.5         |
| <b>Grand Total</b>               | <b>221</b> | <b>409</b> | <b>630</b>  | <b>100.0</b> |
| Education Level of Respondents   |            |            |             |              |
| Highest Education Level Attained | Gibi       | Kakata     | Total count | %            |
| Never Attended                   | 90         | 138        | 228         | 36.2         |
| Primary                          | 83         | 213        | 296         | 47.0         |
| Secondary                        | 46         | 52         | 98          | 15.6         |
| Post-Secondary or Higher         | 2          | 6          | 8           | 1.3          |
| <b>Grand Total</b>               | <b>221</b> | <b>409</b> | <b>630</b>  | <b>100.0</b> |
| Marital Status of Respondents    |            |            |             |              |
| Current Relationship Status      | Gibi       | Kakata     | Total count | %            |
| Divorced                         | 9          | 3          | 12          | 1.9          |
| Married, monogamous              | 136        | 186        | 322         | 51.1         |
| Married, polygamous              | 6          | 0          | 6           | 1.0          |
| Never Married                    | 54         | 162        | 216         | 34.3         |
| Widow/Widower                    | 13         | 32         | 45          | 7.1          |
| Other                            | 3          | 26         | 29          | 4.6          |
| <b>Grand Total</b>               | <b>221</b> | <b>409</b> | <b>630</b>  | <b>100.0</b> |
| Religious Status of Respondents  |            |            |             |              |
| Religion                         | Gibi       | Kakata     | Total count | %            |

|                    |            |            |            |              |
|--------------------|------------|------------|------------|--------------|
| Christianity       | 192        | 385        | 577        | 91.6         |
| Muslim             | 10         | 15         | 25         | 4.0          |
| Non-religious      | 16         | 6          | 22         | 3.5          |
| Not reported       | 3          | 3          | 6          | 1.0          |
| <b>Grand Total</b> | <b>221</b> | <b>409</b> | <b>630</b> | <b>100.0</b> |

## 4.0 RELEVANCE

**Relevance:** is The extent to which the intervention is relevant to the priorities of the target beneficiaries in Margibi, the country needs, global priorities and partner' and donor's policies. In evaluating the relevance of a program/project, it is helpful to consider the following questions: To what extent are the objectives of the program/project still valid? Are the activities and outputs of the program/project consistent with the intended impacts and effects of the program/project? An assessment of relevance at Final Evaluation is vital given the importance of the program/project delivering results to the target population.

This chapter deals with three major areas that relate to the relevance of Margibi WPA in sequence, namely:

- (i) The international and country standards
- (ii) The district level (Council, the people, the church, etc.)
- (iii) Institution (LWIL)

### 4.1 The International and Country Standards

The Margibi WPA was in line with international and national development protocols. The program's objectives and outcomes were clearly spelled out and were further linked to some of the major international and national development frameworks and policies of the time. The program took into account these major development frameworks and policies in formulating its objectives and outcomes. The key frameworks being:

- (i) Sustainable Development Goals;
- (ii) Millennium Development Goals;
- (iii) Republic of Liberia Agenda for Transformation 2012-2017 (Aft)

Margibi WPA's linkages to the global and Liberia's major development frameworks are presented in **Table 4** below:

Table 6: Margibi WPA's Linkages to Global and Country's Main Development Frameworks

| <b>Policy Development Framework &amp;</b>      | <b>Selected Key Objectives and Areas of Focus</b>                                        | <b>Link to Margibi WPA Main Objectives, Strategies and Key Areas</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable Development Goals (SDGs)           | SDG 6: "Ensure availability and sustainable management of water and sanitation for all." | <p><b>Objective A:</b> To increase access to Safe water to vulnerable communities in Gibi and Kakata Districts of Margibi County with a view to contributing to Liberia's sustainable long-term development and WHO standards;</p> <p><b>Objective B:</b> To improve sanitation and hygiene practices with the aim of encouraging and sustaining behavior change within communities in selected counties of Liberia;</p>                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                | SDG 3: "Ensure healthy lives and promote well-being for all at all ages."                | <p><b>Overall Goal:</b> To contribute to the improvement of the health status of the Liberian population through sustainable water, sanitation, hygiene services and spiritual witness, in support of and in cooperation with Government of Liberia development plans and goals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Millennium Development Goals (MDGs)            | MDG 4: "Reduce child mortality."                                                         | <p><b>Overall Goal:</b> To contribute to the improvement of the health status of the Liberian population through sustainable water, sanitation, hygiene services and spiritual witness, in support of and in cooperation with Government of Liberia development plans and goals.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                | MDG 7: "Ensure environmental sustainability"                                             | <p><b>Objective A:</b> To increase access to Safe water to vulnerable communities in Gibi and Kakata Districts of Margibi County with a view to contributing to Liberia's sustainable long-term development and WHO standards;</p> <p><b>Objective B:</b> To improve sanitation and hygiene practices with the aim of encouraging and sustaining behavior change within communities in selected counties of Liberia;</p> <p><b>Objective C:</b> To increase programme effectiveness and efficiency by promoting organizational learning and accountability in reference to the minimum standards and Liberia WASH sector investment plan 2012 – 2017; and</p> <p><b>Objective D:</b> To entrench Christian Witness and Disciple making in all interventions and make it a focal point in all our work.</p> |
| Liberia: Agenda for Transformation (2012-2017) | "Manage, expand and sustain Liberia's WASH services through a                            | <p><b>Objective C:</b> To increase programme effectiveness and efficiency by promoting organizational learning and accountability in</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| <b>Policy Development Framework &amp;</b> | <b>Selected Key Objectives and Areas of Focus</b>                                                                                                                                      | <b>Link to Margibi WPA Main Objectives, Strategies and Key Areas</b>                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | clear, functional and inclusive WASH governance structure and with strengthened operational guidelines, training and financing."                                                       | reference to the minimum standards and Liberia WASH sector investment plan 2012 – 2017                                                                                                                                                                                                                                                                                                                        |
|                                           | "Expand equitable access to environmentally-friendly and sustainable water, sanitation services and solid waste management—including for the poorest and most vulnerable communities." | <b>Objective A:</b> To increase access to Safe water to vulnerable communities in Gibi and Kakata Districts of Margibi County with a view to contributing to Liberia's sustainable long-term development and WHO standards;<br><b>Objective B:</b> To improve sanitation and hygiene practices with the aim of encouraging and sustaining behavior change within communities in selected counties of Liberia; |
|                                           | "Increase safe hygiene practices (e.g., hand washing and reduced open defecation), and strengthening community organizations and schools."                                             | <b>Objective B:</b> To improve sanitation and hygiene practices with the aim of encouraging and sustaining behavior change within communities in selected counties of Liberia;                                                                                                                                                                                                                                |
|                                           | Improve WASH sector capacity and engagement with stakeholders, and strengthen WASH monitoring and information management systems.                                                      | <b>Objective C:</b> To increase programme effectiveness and efficiency by promoting organizational learning and accountability in reference to the minimum standards and Liberia WASH sector investment plan 2012 – 2017                                                                                                                                                                                      |

## 4.2 Margibi WPA appropriate to Margibi County and the community

Margibi WPA is assessed at two levels; appropriate to the district, and Margibi WPA work with institutions in the community

### 4.2.1 WPA relevance to Kakata and Gibi districts of Margibi County

The Objectives of the Margibi WPA contributed to the overall objectives of the Margibi County Health and Social Welfare Team (MCHSWT). The County Health and Social Welfare Team (CHSWT) is the operational arm of the Ministry of Health and Social Welfare (MOHSW). Under the direction of the central MOHSW, CHSWTs manage all Ministry-owned facilities, Ministry-employed human resources and Ministry provides material resources in their county.

In 2012, the Kakata and Gibi districts of Margibi County had a population of 88,704 and 14,250 with an area of 398 and 214 square miles. Many lacked access to basic WASH services. At final evaluation, 79% of households had access to an improved source of water (Table 7).

The population to water point ratio was 333 and 1188 in Kakata and Gibi districts respectively. There were thirty-five health facilities in the county, including two hospitals, seven health centers and twenty-six clinics. With 146 hand pumps in use in Margibi County, an average of 1650 people were making use of each pump. Some 1685 people shared each available latrine, as there were only 143 latrines in use in the County.

Table 7: Safe Water Access in Kakata and Gibi districts

| Admin Unit |          | % Access to improved/protected source |
|------------|----------|---------------------------------------|
| County     | District |                                       |
| Margibi    | Kakata   | 77.3                                  |
|            | Gibi     | 80.5                                  |
|            | Total    | 79.0                                  |

#### 4.2.2 WPA's work with institutions in the community

##### **Institution Facilities**

Margibi WPA worked with four types of community institutions, these included health facilities, schools, churches and water points. The comparisons of their access to various facilities at baseline and final evaluation are in Table 6. The table shows improvement in access to various amenities.

Table 8: Health Facilities at Baseline and Final evaluation

|  | Baseline | Final evaluation |
|--|----------|------------------|
|--|----------|------------------|

|                                                        |          |           |
|--------------------------------------------------------|----------|-----------|
| <b>Number of health facilities</b>                     | <b>9</b> | <b>11</b> |
| Number of facilities – protected/improved water source | 7        | 8         |
| Number of facilities with latrines present             | 7        | 11        |
| Number of facilities with hand washing facility        | 7        | 10        |
| Hand washing facilities with soap/ash                  | -        | 7         |
| Number of facilities with garbage/refuse pits          | 1        | 11        |

## Schools

Access improved across all amenities for schools. At baseline, the report, on which information is based, did not provide the number of schools enumerated. Similarly, hand washing facilities with soap did not have data.

Table 9: Schools at Baseline and Final evaluation

|                                                    | <b>Baseline</b> | <b>Final evaluation</b> |
|----------------------------------------------------|-----------------|-------------------------|
| <b>Number of schools surveyed</b>                  | -               | <b>29</b>               |
| Percent with water facilities – protected/improved | 70.4            | 79.3                    |
| Percent with latrines present                      | 40.0            | 96.6                    |
| Percent with hand washing facility                 | 14.2            | 82.8                    |
| Percent Hand washing facilities with soap/ash      | -               | 54.2                    |

## 5 EFFECTIVENESS

**Effectiveness:** The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance. Also used as an aggregate measure of (or judgment about) the merit or worth of an activity, i.e. the extent to which an intervention has attained, or is expected to attain, its major relevant objectives efficiently in a sustainable fashion and with a positive institutional development impact.

### 5.1 Overall Achievements of Selected Key Performance Indicators

This chapter presents the KPIs under three (3) major themes.

- (i) Access to safe water;

- (ii) Sanitation and hygiene;
- (iii) Christian witness;

Findings of selected Key Performance Indicators (KPIs) are presented in **Table 8** below.

Data shows strong performance at final evaluation compared with baseline data. At baseline, 31.25% of households had access to improved water source. This increased to 79% at final evaluation. The proportion of households with latrine increased from 8% at baseline to 29.8% and final evaluation. At baseline, no households had a handwashing facility. At final evaluation, 5.2% had handwashing facility. Similarly, while there were no churches involved in WASH activities at baseline, at end line 88.9% were involved in the WASH activities.

Table 10: Key Performance Indicators

| Indicator                                                                                    | Baseline<br>(2013) (BL) | Final<br>evaluation<br>(2021) (EL) | %<br>Change<br>Between<br>(FE and<br>BL) <sup>6</sup> |
|----------------------------------------------------------------------------------------------|-------------------------|------------------------------------|-------------------------------------------------------|
| % Drawing water from protected water sources                                                 | 31.3                    | 79.0                               | 47.1                                                  |
| % Water points where Water User Committee exist                                              | 12.1                    | 93.8                               | 81.7                                                  |
| % Households with latrines                                                                   | 8.0                     | 29.8                               | 21.8                                                  |
| % Households reported storing water for human consumption in a container with a lid or cover | 18.0                    | 39.0                               | 21.0                                                  |
| % Households with handwashing facilities                                                     | 0                       | 5.2                                | 5.2                                                   |
| % The churches involved in WASH Activities                                                   | 0                       | 88.9                               | 88.9                                                  |

## 5.2 Access To Safe and Potable Water

### 5.2.1 National Safe Water Coverage

The Government of Liberia official development strategy, the PAPD (2018-2023), set the targets for SDG 6.1. By 2023, the government had aimed to have 85% of Liberians have access to basic water services, and 65% access to safely managed water points.

<sup>6</sup> How **percentage change** is calculated:  $(\text{after value} - \text{before value}) / \text{before value} * 100 = \% \text{ change}$

By 2020, 75.3% of all households in Liberia had access to at least basic water services and 14.5% had access to safely managed water services. The coverage for at basic water services is a sign of progress by Liberia while the low coverage to safe drinking water may be a cause for concern.

Basic services and safely managed services are steps in a joint WHO/UNICEF Joint Monitoring Programme (JMP) service ladder for the various components of WASH. A service ladder is a useful tool that is used to monitor progress towards the water, hygiene and sanitation targets of the SDGs.

### 5.2.2 Water Service level

Drinking water services refers to the accessibility, availability and quality of the main source used by households for drinking, cooking, personal hygiene and other domestic uses. In this section, we use the JMP mechanism to determine the water service levels in the Living Water International WASH Program Area (WPA) in Margibi County in the districts of Kakata and Gibi in Liberia. The JMP ladder for drinking water is shown in Figure 6 below:

|                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SAFELY MANAGED</b><br>Drinking water from an improved water source which is located on premises, available when needed and free from contamination |
| <b>BASIC</b><br>Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing        |
| <b>LIMITED</b><br>Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing               |
| <b>UNIMPROVED</b><br>Drinking water from an unprotected dug well or unprotected spring                                                                |
| <b>SURFACE WATER – NO SERVICE</b><br>Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal                         |

Figure 6. Percent share sample households by district, sex of respondent

The Sustainable Development Goal (SDG) 6,1 promises universal access to safe drinking water for all by 2030. That means water that is:

- a) located on premises;
- b) available when needed; and
- c) free from contamination

By implication, the SDG agenda suggests that basic water— drinking water from an improved source within a 30-minute walk from home— is not good enough. Safely managed water, that meets the three criteria above, is the SDG end goal.

Moving from the basic service to safely managed one, for a developing country as Liberia, is a daunting task. It implies huge investments in infrastructure such as treated and piped water supplies with household connections or boreholes with handpumps on premises. The safely managed water service coverage levels are likely to remain low for a long time.

Apart from baseline data, the proportion of households in Margibi WPA accessing safe water for drinking, is also compared with national figures from the JMP datasets (JMP,2021), Figure 7.

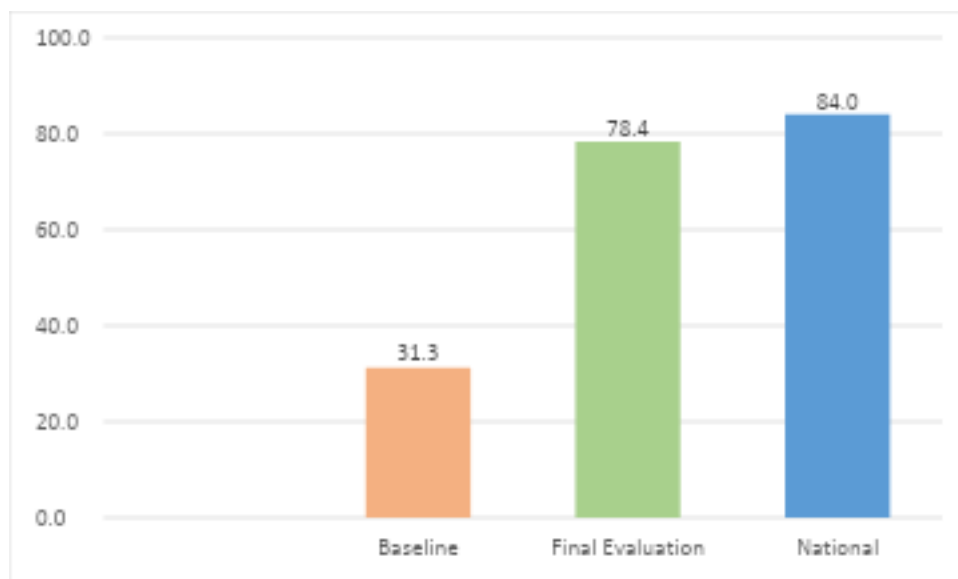


Figure 7: Main source of drinking water at final evaluation (%) compared with the baseline and national data – safe/Protected Source (at least limited service level)

Results from the survey indicate that 79 % of the households in Margibi WPA used at least limited water services (improved irrespective of time it takes to draw water). This was an improvement from the 31.25% at baseline. However, this was below the 84 % at national level.

Figure 8 breaks down this comparison by water source. This explains the improvement in the access to improved sources improved at final evaluation compared with the results from the baseline study. The proportion of households accessing water from a borehole improved the most, jumping from 7.2% at baseline to 50.5% and final evaluation. Margibi WPA fares worse as regards the unimproved and surface water levels. At the unimproved service level, 8.3% of its households access the services compared to 3.5 % at national level. For Margibi WPA households, 16 % and 67 % access limited and basic service levels respectively compared with 8.7% and 60.8 % respectively, at national level. Protected wells were reported by 18.7% of households at final evaluation, compared with 14.4% at baseline. The use of river or creek as a water source declined considerably, from 42.7% at baseline to 7.6% at final evaluation. There were similar declines in the use of unprotected surface well and protected spring as water sources.

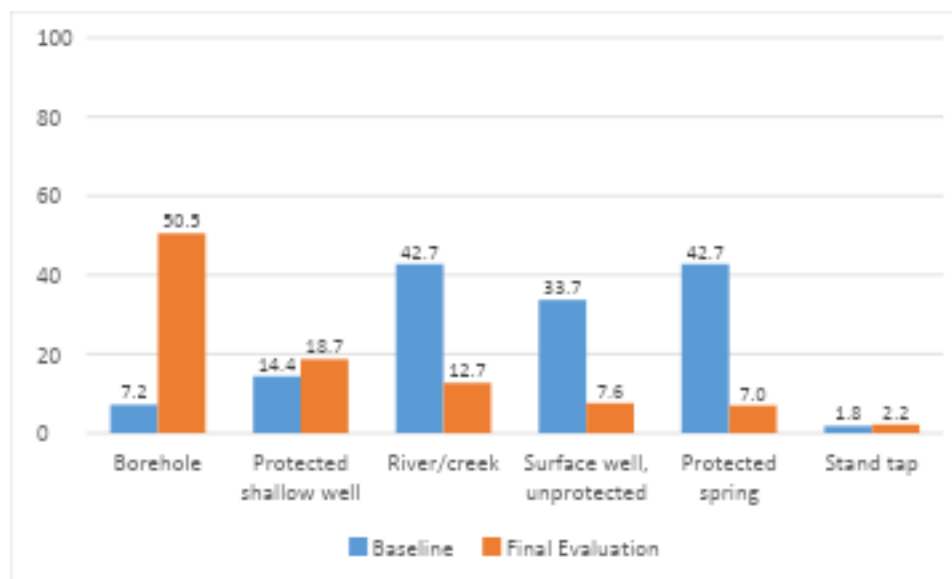


Figure 8. Baseline and final evaluation access to water by source, 2020

### 5.2.3 Round Trip Water Fetching Time

Figure 9 shows how long it took to travel from home, collect water and return home from a water source. Most of the households (88.2 %), at final evaluation, compared to 60% at baseline, spent 30 minutes or less to get to a water source, queue up and return home. This proportion included households with water on the premises.

At baseline, 60% of the households were less than 500 metres from an improved water source. At final evaluation, 72.5% of households reported being within 500 metres of an improved/protected water point, showing an improvement of over 12%.

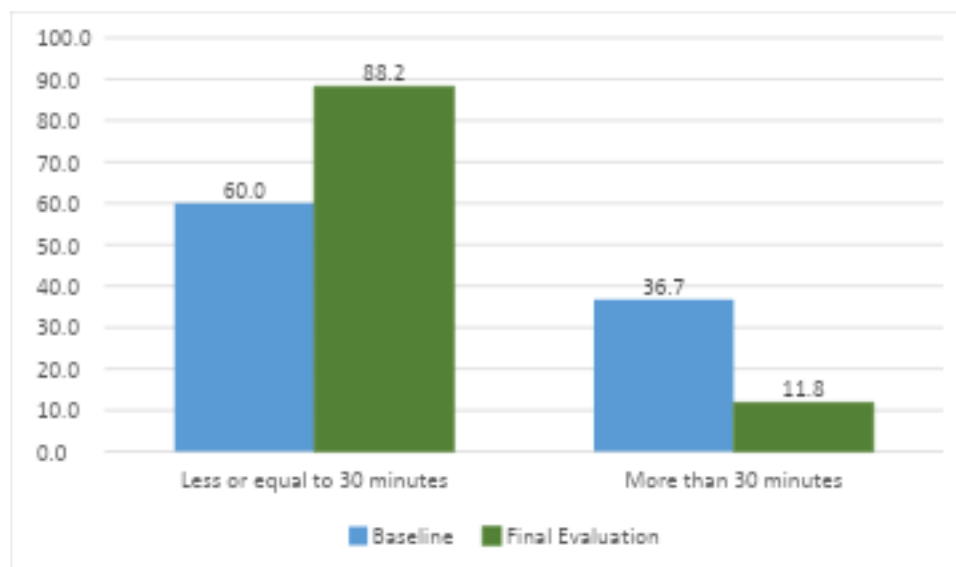


Figure 9: Round trip water fetching time

When water is not on the premises, the burden of fetching it falls disproportionately on women and children, especially girls. The gender divisions in water-fetching responsibilities have wider implications for social equality. For women, the opportunity costs of collecting water are high, with far reaching effects. It considerably shortens the time they have available to spend with their families, on childcare, other household tasks, or even in leisure activities. For both boys and girls, water collection can also take time away from their education and sometimes even prevent their attending school altogether.

In Margibi WPA, women and girls bear most of the responsibility for fetching water. Some improvement, however, was recorded at final evaluation compared with the baseline results. At baseline, 89 percent of the responsibility for fetching water was borne by women and girls, 11 percent by men and boys. At final evaluation, men and boys had taken up more responsibility for fetching water, nearly doubling their share of responsibility to 21.6 percent. Figure 10 shows the share of responsibilities at baseline and final evaluation.

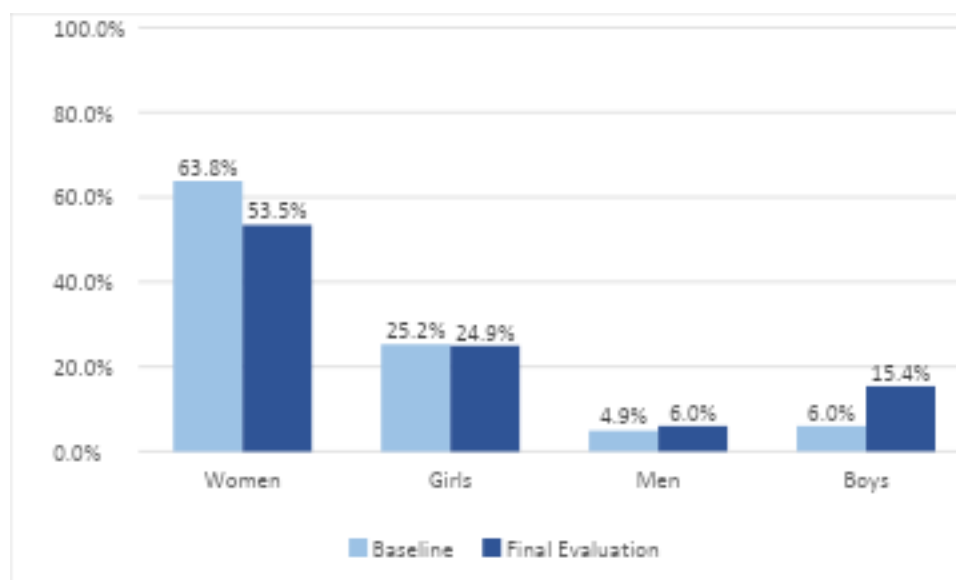


Figure 10. Share of responsibilities at baseline and final evaluation.

#### 5.2.4 Safe Water Storage

Collection and storage are potential entry points for contamination of drinking water. Safe water storage ensures drinking water is protected from microbial contamination, maintaining water quality and preventing diarrhoea and other water-borne diseases. Safe water storage, for this study, is defined as storing drinking water in a container with a tight-fitting lid. The percentage of households who stored water in closed containers increased by 21%, from 18.1% at baseline to 39.0% at final evaluation.

#### 5.2.4 Households Contributing Towards O&M

Nearly two thirds (63.5%) of households in Margibi WPA were contributing towards operations and maintenance (O&M) of water sources. Half (50.0%) were making contributions towards O&M of water sources in monetary terms. This information is presented in Figure 11.

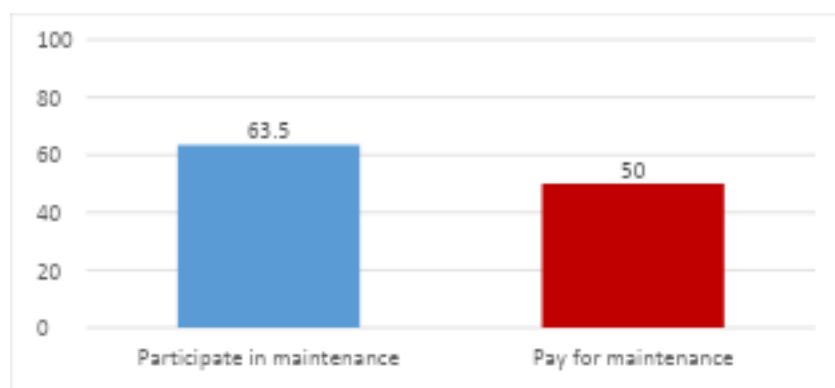


Figure 11: Percent Contributing towards O&M by participation and payment at Final evaluation

Household members were contributing towards O&M in terms of maintenance of machinery, cleaning and slashing around the water sources, attending meetings, and in various other ways. More households (54.3%) contributed to O&M by cleaning the surroundings, a manual job, than any other way, Figure 12.

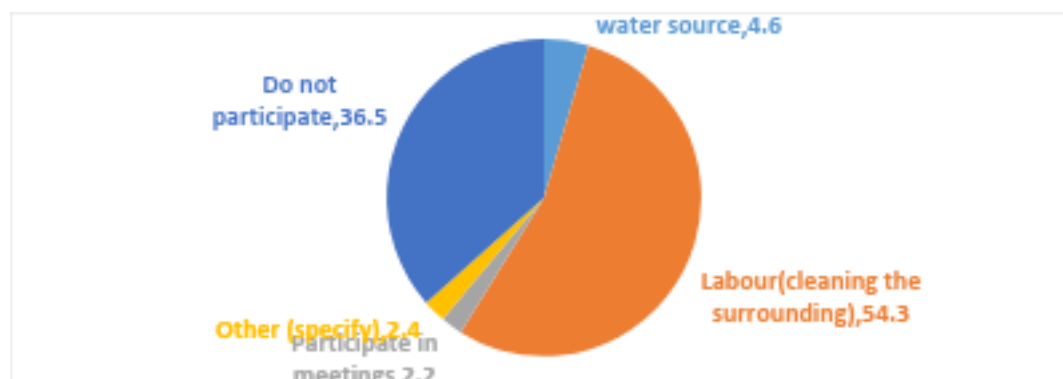


Figure 12: Percent Manner of contribution towards O&M at Final evaluation

Only 4.6% of the households contribute with maintenance of the water source. This may indicate the lack of mechanical skills, within the community, in repair and maintenance of water pumps and other equipment. Although half (50%) of the households pay maintenance fee contributions, these may not be enough for the operations.

*“Because the pump is very old now, we need to fix it. It is good to put chlorine in the water for it to be safe for drinking. The water is not enough for all of us in this community, we are too plenty. As I said, we need to fix our damaged pumps and build more and treat the water” (25-year-old Whon Town, Gibi Male FGD Participant)*

### 5.2.5 Water Points Key Indicators

Table 11 shows the performance of water point key indicators.

Water availability and management greatly improved at the water points in Margibi County since the inception of the LWI-L WASH project. At final evaluation, over three-quarters (78.1%) of the water points had water throughout the year compared to 37% at baseline, 93.8% had water user committees compared to only 12.1% of the water points at baseline. Further, 75% of the water points were receiving community contributions toward operation and maintenance, compared to 12.1% at baseline.

At baseline, the following management activities were absent at all water points: trainings, active care takers, maintenance records, pump mechanics and preventive maintenance. At final evaluation, 93.8% of water points reported having had trainings, 96.9% had active care takers, 81.3% had WUC maintenance records, 68.8% had pump mechanics, and 81.3 carried out preventive maintenance works.

Table 11. Water point indicators

| Indicator                                    | Baseline | Final Evaluation |
|----------------------------------------------|----------|------------------|
| Water points with water throughout the year  | 37.0     | 78.1             |
| Water User Committee Exists                  | 12.1     | 93.8             |
| Trainings received                           | 0.0      | 93.8             |
| Has Active Caretakers                        | 0.0      | 96.9             |
| WUC Maintain records                         | 0.0      | 81.3             |
| Have the pump mechanic for this water source | 0.0      | 68.8             |
| Preventive maintenance done                  | 0.0      | 81.3             |
| Community contribution towards O&M           | 12.1     | 75.0             |



## 5.3 Sanitation and Hygiene

### 5.3.1 National Sanitation Coverage

Liberia's targets, according to the PAPD (2018-2023), for SDG 6.2, were, by 2020, achieving 85% access to basic sanitation; 60% access to safely managed sanitation; and 75% of community open defecation free. The JMP (2020) report indicates that coverage came short of all the set targets. Sanitation coverage for at least basic level was only 18.2 %, and open defecation free coverage was 62.3 %. There is no data for access to safely managed sanitation.

### 5.3.2 Access to any Form of toilet Facility

At baseline the proportion of households with access to any latrine facility (improved or unimproved) was 8%. It improved to 29.8% at final evaluation. Despite the improvement, the proportion at final evaluation was below the national coverage of 62.3%, and below the project target of 50%, Figure 13.

Eighty-two percent of the households at final evaluation who had access to sanitation facility (29.8%) said they could use their facility at all hours of the day and night.

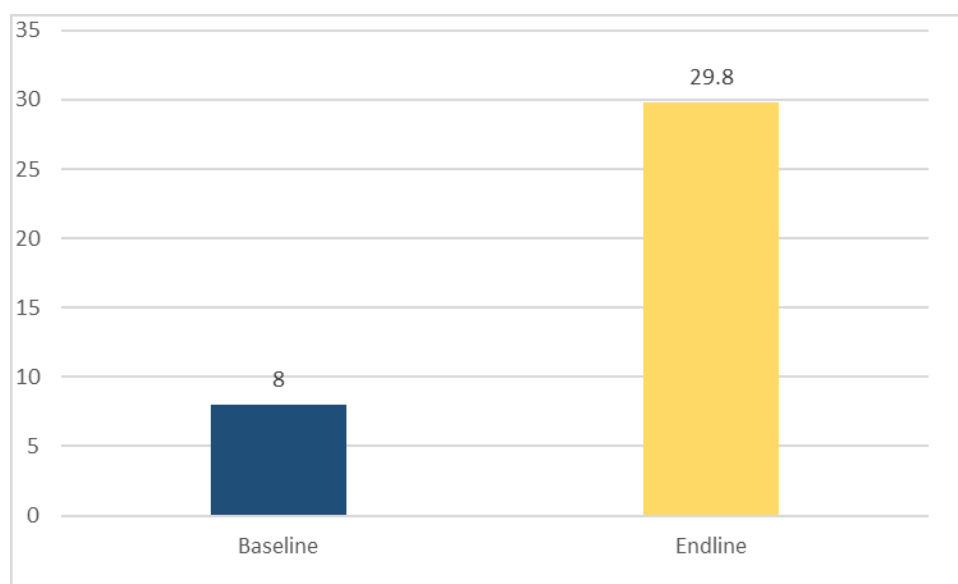


Figure 13: Accessing to sanitation facility at baseline and final evaluation

### 5.3.3 Open Defecation Free

Open defecation is the human practice of defecating outside ("in the open") rather than into a toilet. The JMP defines open defecation as disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste.

At baseline, the majority of respondents (92%) used bush or field while the 8 % used various types of toilets. At final evaluation, the proportion of households using toilets increased to 29.8% and those without access to any toilet represented 70.2% of the total.

Despite this improvement, the ODF status remained below the Liberia national ODF status coverage of 62.3%, and the Liberia rural coverage of 40.9%, Figure 14.

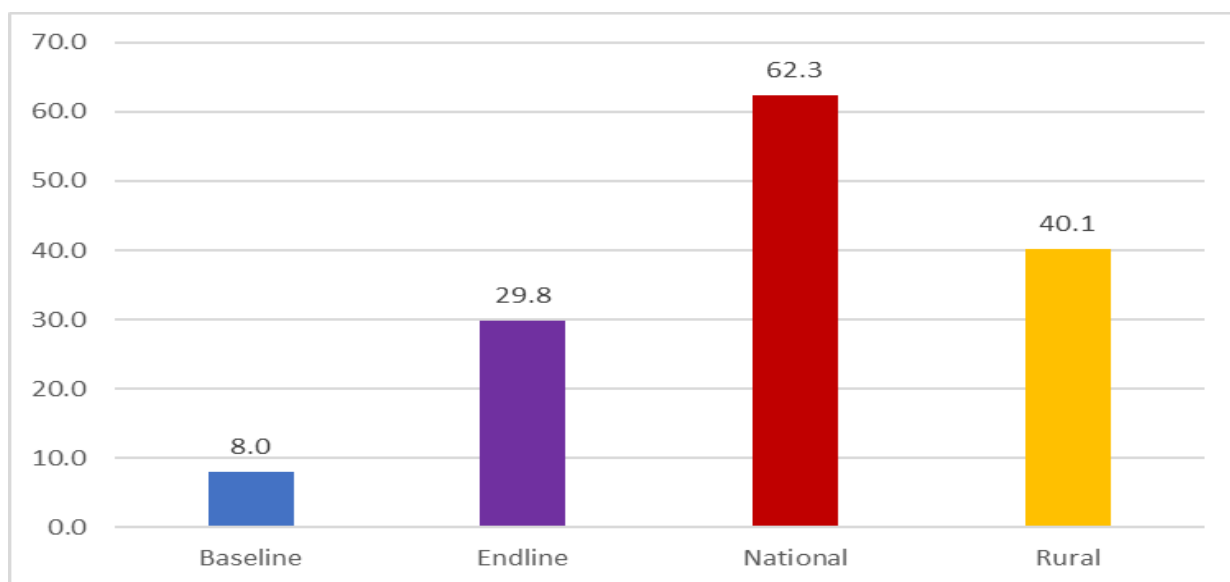


Figure 14: ODF coverage, baseline, final evaluation, national and rural

The main reasons for the low ODF in Margibi WPA include the fact that the toilets were built using substandard materials resulting in their breaking down, and lack of resources to build new ones or repair the broken toilets:

*"My main comment is that as I said, we do not have the main materials to build good latrines that will last long. Therefore, we need these materials to do it. Sixty-eight percent (68%) of the people do not have latrines because it is certain place that this hygiene thing stopped. Like this Plemoo Town, there were people who graduated from the CLTS. That was how we were given substandard materials to build toilets. In addition, many of them were damaged. Therefore, we need to rebuild all these damaged facilities to carry out this good sanitation practices. So far, six toilets were built, from there it was*

extended to Gbah Joe, but they did not graduate because they took it light. Yes, there is a great benefit from the latrines. We are not experiencing diarrhea. Because people died from diarrhea before in this place. Now it is not happening again because of the good sanitation practices" (35-year-old, Male Kakata Pastor).

#### 5.3.4 Type of Toilet Facility and Sanitary Condition

Table 12 presents household access to toilet by type.

Flush toilets (15.5%) were the most common type of sanitation facility used by the majority of households with toilets at final evaluation. No flush toilets were reported at baseline. Other types of sanitation facilities reported included pit latrines without slab, pit latrines with slab, ventilated Improved toilet (VIP) and other types. The proportion of households reported using toilet facility increased for all types, except for those that used pit latrine with slab. At baseline, 6.8% of households used pit latrine with slab. This dropped to 4.9% at final evaluation.

Table 12. Type of toilet facility, Baseline, Final Evaluation

| Type of toilet                        | Baseline | Final Evaluation |
|---------------------------------------|----------|------------------|
| Pit latrine with slab                 | 6.8      | 4.9              |
| Pit latrine without a slab            | 0.8      | 7.3              |
| Ventilated Improved Pit latrine (VIP) | 0.3      | 0.5              |
| Flush toilet                          | -        | 15.5             |
| Other                                 | -        | 1.6              |
| No Toilet                             | 92       | 70.2             |

Results from the final evaluation survey (Figure 15) revealed that more than half (53.2%) of the households that reported having a toilet were sharing their sanitation facilities with other households. Forty-one percent (41.0%) had individual household latrines (IDLs) and 5.8% did not state their shared status. Sanitation shared by more than one household is not considered to meet the SDG standard of either basic or safely managed sanitation and is not scored toward the SDG targets. Evidence from research suggests that those relying on shared sanitation facilities compared to individual household latrines (IHLs) are at increased risk of adverse health outcomes.

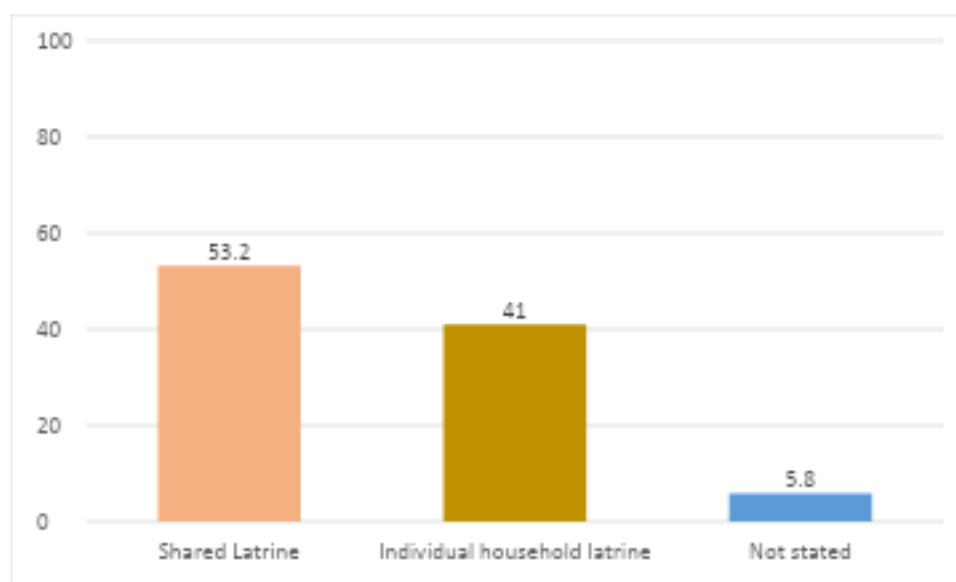


Figure 15: Households by status of sanitation facility

The CLTS approach, which has a no-subsidy policy, focuses on demand creation through an intensive set of community mobilization activities. Without a subsidy program for household toilet construction, poverty remains a factor in determining household sanitation service level.

*"We have toilets but the toilets are down. The zinc got rotten, and the area is leaking. The septic tank that we dug it broke in and the whole area became polluted, so we left it and people started using the bush"* (42-year-old, Big Fat Town-Kakata, FGD Participant).

Figure 16 presents the observed sanitary facility condition, comparing baseline and final evaluation results.

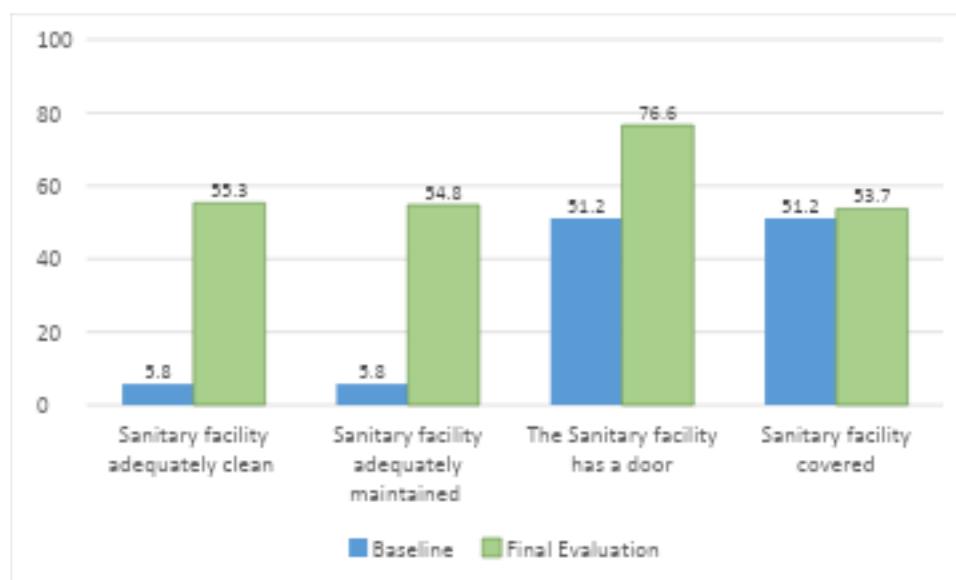


Figure 16: Maintenance and cleanliness of the toilet facility

The proportion of households which had latrines that were observed as adequately clean or adequately maintained at final evaluation was 55.3% and 54.8%, respectively compared to 5.8% for both at baseline. At final evaluation, 76.6% of the facilities had a door compared to 51.2% at baseline. The number of covered facilities only marginally increased from 51.2% at baseline to 53.7% at final evaluation.

*"Cleaning of our surroundings, and latrines. Because we do not want to get sick. Yes, we are not really getting sick like before. We can clean around our community, the pumps, and the circle of the pump. Cleaning of our toilet, our houses and community" (19-year-old, Gibi, Female FGD participant).*

### 5.3.5 Handwashing Facilities

The presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for global monitoring of hygiene. Households that have a handwashing facility with soap and water available on premises meet the criteria for a basic hygiene facility. Households that have a facility but lack water or soap will be classified as having a limited facility and distinguished from households that have no facility at all.

A lowly 5.2 percent, at final evaluation, of all households had a hand washing station for use after using the latrine. No household (0%) had a hand washing facility at baseline. Full results are presented in Figure 17, below.

The reason why the program was only modest in proving access to hand washing facility could be linked to the communities' attitudes towards the practice.

The reasons given during qualitative survey indicate the need for behavioural change.

*"The hygiene practices in this community are not improving because people feel that we are an urban town and not a rural town. There are things that they will go in the villages to teach and they give all the knowledge to the other towns and villages and when they come to us we are zero" (34-year-old, Gibi Male FGD Participant).*

*"Behavioral change is the best but that also requires awareness. If we ourselves tell the people about the hygiene practices like washing hands and that they should stop toileting around the community they will think that we are crazy but if awareness is done by organizations and latrines are built than that will improve" (Peter Town, Male FGD Participant).*

At final evaluation 27.3% of all households had garbage pits compared to 2.5% at baseline. At final evaluation, 12.8% used drying racks from 0.5% at baseline.

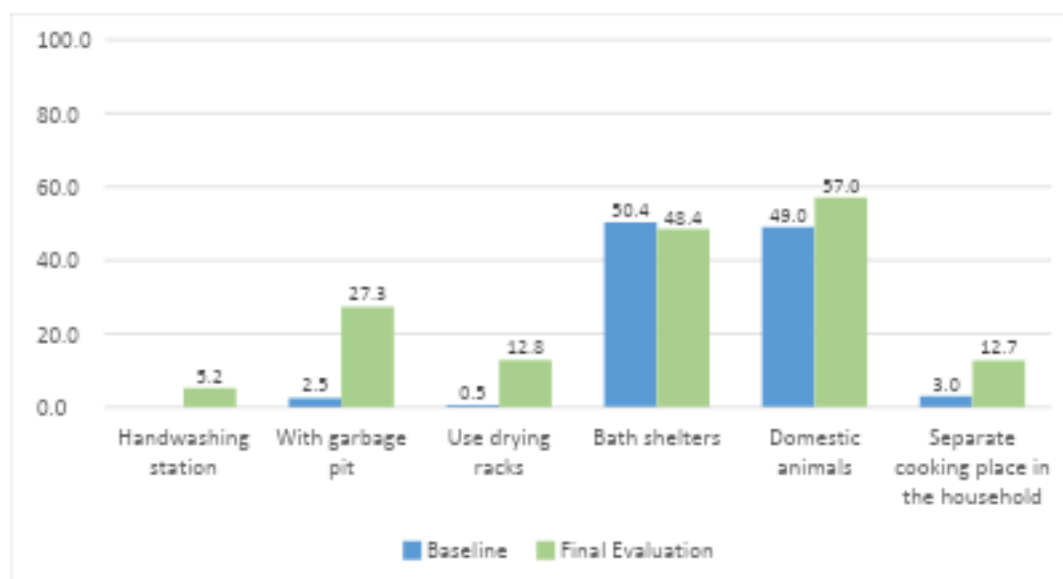


Figure 17: Hygiene indicators, baseline, final evaluation

### 5.3.6 Bath shelters, domestic animals

The main purpose of bathing is personal hygiene, a preventative measure to reduce the incidence and spread of disease. The global indicator for basic hygiene services (SDG 6.2) serves as a useful starting point but does not incorporate other important aspects of hygiene, including the presence and condition of bathing areas. Household members should be able to bathe in functional, clean and accessible facilities that respect their privacy and dignity.

Results from the final evaluation indicate that just under half (48.4%) of the households had a bath shelter compared to 50.4% at baseline, Figure 18, above.

Another indicator is presence of domestic animals. Domestic animals and birds have played a central role, particularly, in the lives of rural households. They are an important source of food security and income. However, domestic animals may directly or through contamination of the environment and through bacteria, viruses, parasites, and fungi transmit disease to humans. As such, it becomes very important that animals live in shelters, separate from humans.

At baseline, 49% of the households had domestic animals and birds. At final evaluation, the proportion of those reporting having animals or birds increased to 57%. Further, 38.4 % (or 67 % of livestock-rearing households) reported having a separate shelter for domestic animals and birds. The comparison of baseline and final evaluation figures is given in Figure 19.

## 5.4 Christian Institutions

Living Water International implements participatory, community-based water and sanitation solution. As a faith-based organisation, it exists to help the community experience the gospel of Jesus Christ that alone quenches the deepest thirst.

At final evaluation, 91.6 % of all households identified as Christians. Four percent identified as Muslims and 3.5% identified as non-religious.

According to qualitative findings, many people were not just happy about the WASH project, but the gospel as well. They expressed their gratitude in many ways.

*"Preaching of the gospel, many people knowing the truth and are going to church. Well, we need more Ministers of the gospel so we can grow in the lord. Like here, only one person can preach in this big community. Let the church focus on the maintenance of the pump too, because the church is well respected here like the pastor" (31-year-old, Male FGD Gibi Participant).*

*"Because of Living Water, many people have come to the church to hear the words of God and they are changing. Speaking to you am pastor Yarkpawolo head of this church. We go from door to door preaching to them telling them that the gospel is important for our lives. Yes, these methods are very good and effective. We want to complete our sanctuary is completed; many people will come" (35-year-old Male Kakata Pastor).*

*"We are improving form our mistakes in the past, and in the new WPA we are making things more modern now. We have talked with USAID; the government and things are working out for us" (41-year-old M& E Officer, LWI).*

At baseline, of the churches survey, none was involved in any WASH activities. At final evaluation, all of the 9 churches surveyed were involved with WASH activities.

## **6 EFFICIENCY**

**Efficiency:** measures the program/project outputs (qualitative and quantitative) in relation to the inputs. It is concerned about the attainment of the program/project outputs using the least cost means. When evaluating the efficiency of a program/project, it is useful to consider the following questions: Were objectives achieved on time? Did the intervention have sufficient and appropriate staffing resources? Did the implementation of the intervention make effective use of time and resources to achieve results? Was the intervention designed and/or amended throughout the implementation period to provide the best value for money?

There are two major considerations of efficiency dealt with in this short chapter, and these are discussed below in sequence:

- (i) Cost-efficiency of activities, and;
- (ii) Adequacy of implementing structures

In summary:

- Results-based management LWI principles and protocols were fully used by the project and commitments were properly followed up on.
- Collaboration and coordination between LWIL and government, partners and stakeholders ensured efficiency and coherence of response.

## **6.1 Cost-efficiency of Activities**

An analysis of cost efficiency by budget line was undertaken. This compared the budgeted amount of each budget line with the actual expenditure over the entire programme period. An overall assessment of cost-efficiency of activities is that the programme was efficient, given that on average the expenditure on project activities was 91% of the total budget of the same activities (see Table 11). Thus, the total expenditure on project activities was less than the budget by 9 percentage points.

Out of a total of 16 items (see Table 13), nearly 70% of these (or 11 items) were within the budgeted amounts (see Table 11 for details). In terms of the amounts expended as a percentage of the budgeted figures, the 11 items ranged from as low as 38% (printing and production) to 90% (office materials and supplies). This suggests that office materials and supplies was the most efficient budget line, followed by repair and maintenance at 51%.

The items which recorded an over-expenditure went beyond the budgeted figure by a percentage range from 110% (travel, meals and lodging) to 5170% (professional and consultancy fees). Other items which recorded over-expenditure were depreciation (413%), custom duties, postage, shipping and due subscription (196%), and advertisement, promotion and social marketing (115%). Clearly, the 5 items which went beyond the budget may have been on account of either under-budgeting (this could be particularly the case with professional and consultancy fees because the budgeted figure of US\$200.00 is less than the fee rate for a day in most cases) or inflationary trends (likely to be the case for travel, meals and lodging).

Table 13.: Budget versus Expenditure by Budget Line

| Description                                            | Program Expenses      | Projected Budget   | Expenditure as a % of budget |
|--------------------------------------------------------|-----------------------|--------------------|------------------------------|
| Professional and Consultancy fees                      | \$10,340.00           | \$200.00           | 5170%                        |
| Depreciation                                           | \$751,390.61          | \$181,735.50       | 413%                         |
| Custom Duties, Postage, shipping, and due subscription | \$132,822.75          | \$67,672.54        | 196%                         |
| Advertisement, Promo, and Social Marketing             | \$26,220.94           | \$22,898.00        | 115%                         |
| Travel, Meals, & Lodging                               | \$355,597.43          | \$323,111.01       | 110%                         |
| Office Materials & supplies                            | \$117,068.73          | \$129,790.55       | 90%                          |
| Personnel & Contractors                                | \$1,431,004.72        | \$1,645,708.75     | 87%                          |
| Utilities                                              | \$16,813.65           | \$20,462.00        | 82%                          |
| Education & Training Staff/Beneficiaries               | \$176,853.85          | \$241,502.50       | 73%                          |
| Telcommunication and Internet                          | \$73,020.23           | \$103,521.51       | 71%                          |
| Insurance/vehicles                                     | \$99,048.42           | \$142,600.08       | 69%                          |
| Drilling Materials and supplies                        | \$710,345.09          | \$1,050,875.53     | 68%                          |
| Water & Drilling Equipment/Program fuel                | \$263,277.41          | \$412,342.09       | 64%                          |
| Rental of facilities and Equipment                     | \$40,502.70           | \$66,422.00        | 61%                          |
| Repair and Maintenance                                 | \$152,015.13          | \$300,635.39       | 51%                          |
| Printing and Production                                | \$34,258.32           | \$90,523.00        | 38%                          |
| <b>Total</b>                                           | <b>\$4,390,579.98</b> | <b>\$4,800,000</b> | <b>91%</b>                   |

Source: Living Water International Liberia

## 6.2 Adequacy of Implementing Structures

The program was conceived by LWI and was implemented by LWIL. LWIL worked in partnership with the Government of Liberia (GOL), through the mainline Ministries of Health (MoH) and Public Works (PW), the local communities and local churches within the selected two districts. The program also established partnerships with schools and health facilities. These partnerships improved coordination and synergies to reduce duplication.

The Margibi WPA project was managed in line with LWIL's internal management policies including, recruitment, procurement, financial management. Specific measures are taken to ensure the efficient use of resources.

## 7 SUSTAINABILITY

**Sustainability:** focuses on whether program/project benefits will continue beyond donor funding. Sustainability should be environmentally as well as financially. Useful questions to ask when evaluating sustainability should include: To what extent can the activities and the benefits of the intervention continue after external funding has ceased? What were the major factors which influenced the achievement or non-achievement of sustainability?

Sustainability is discussed under two areas: (i) Institutional sustainability; (ii) Mechanism for operations and maintenance.

### **7.1 Institutional Sustainability**

LWI promotes institutional sustainability through its collaboration with local partners. This approach was used for Margibi WPA. Sustainability of the project is based on how communities have maintained infrastructures built under the project, as well as the change in behaviours regarding safe hygiene practices. With regards to water infrastructures, the evaluation team found that communities were very engaged with maintenance of the water points. The community water user committees (CWC) and the Natural Leaders at community levels, continued to play key roles in maintaining the water points and continuing the spread of hygiene and sanitation messages.

Living Water Liberia used the Community Led Total Sanitation (CLTS) approach, which contributed to improvements in construction of sanitation facilities through community participation. Through participatory exercises, discussions, and awareness, communities were able to plan to become open defecation free (ODF), promote hygienic behaviours, along with construction of latrines by the communities themselves. This approach encouraged people to change their hygiene behaviours without prescribing how to do so. It also empowered local leaders and facilitators as they moved on to other communities to share these messages and used the momentum of collective action and social cohesion to address other livelihood issues in the community.

*“Behavioral change is the best but that also requires awareness. If we ourselves tell the people about the hygiene practices like washing hands and that they should stop toileting around the community they will think that we are crazy but if awareness is done by organizations and latrines are built than that will improve”*  
(Peter Town, Male FGD Participant).

However, while project was socially sustainable, it was not financially sustainable as funding from the local community could not ensure continuity in the delivery of products and services related to water, sanitation and hygiene. A strong partnership with an eventual handover to government would have assured continuity, financially.

### **7.2 Mechanism for Operations and Maintenance**

Most of the water points established by the Margibi WPA had a mechanism were established to involve communities in operations and maintenance of the water points. Results the 32 water points were surveyed at final evaluation, indicate community involvement was nearly universal in O&M.

With regards to community engagement, 30 water points had user committee, 30 had had trainings received, 31 had active caretakers, 26 water points had user committee records maintained. The number of women committee members ranged from none to 5. The number of households served by a water point was as high as 200. Twenty-two water points had a pump mechanic while 26 conducted preventive maintenance. Community contributions are in cash (17) and cash and labour (3).

Qualitative findings show that Margibi WPA, support the fact that communities were involved in the maintenance of WASH facilities. This is important for sustainability of WASH facilities:

*"Yes, firstly the well that Living Water dug here for us is still functioning. Since they left, we had two pumps broken down. The community was able to repair them by itself. Right now, they are still running. The only thing we had been lacking is to put chlorine in the well. Our water is still good"* (40-year-old Gibi, Male Interviewee).

While LWIL trained and facilitated the sinking of new boreholes, construction of toilets and establishment of hygiene facilities, the services and products may not be sustained, financially, by the community.. As a result, the qualitative results at final evaluation indicate that the community continued to face challenges with maintenance.

*"The main challenge are our pump and latrine are damaged and need repair. To address this problem, we called the Parents Teachers Association (PTA) to work along with us to solve the problem. Yes, the students are benefiting from it. To continue the best-improved hygiene practices is to encourage the students to keep doing it. I can say almost four or three times. We benefitted us because the students are using the pump. The result is that everyone was drinking safe and clean water"* (54-year-old, Kakata School Staff Member, FGD 1)

## 8 IMPACT

**Impact:** Positive and negative primary and secondary long-term effects produced by the intervention, whether directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the local social, economic, environmental and other development indicators which are significant and sustained over a long period of time. When evaluating the impact of a program or a project, it is useful to consider the following questions: What has happened as a result of the program or project? What real difference has the activity made to the beneficiaries? How many people have been affected and in what way(s)?

This short chapter has three sections to bring out the impact on safe water access and use, sanitation and hygiene produced by the Margibi WPA interventions.

## 8.1 Safe Water Access and Use

### Safe drinking water at the source and point of use

No water quality tests to detect any contamination in water were conducted from any water sources and at any points of use in the Margibi WPA. However, water containers used for fetching and storing water at home were observed by the field data collectors and reported as covered or open. Further, households reported the type of water source they had access to and used.

- **The adoption of household water handling practices and hygiene principles promoted by the LWIL Margibi WPA project was higher at final evaluation than at baseline, although there is much room for improvement.** Thirty-nine (39%) of the sample households reported storing water for human consumption in a container with a lid or cover at final evaluation compared with 18% at baseline. While the incidence of diarrhoea can be attributed to many causes, unsafe domestic water storage and handling is also an important risk factor.
- **Regarding a safe water source, the Margibi project made a positive difference in enhancing household access to and use of improved water sources.** At the time of the final evaluation field survey, about 79% of the sample households in the county reported that they fetched water from improved water sources compared with 62.5% at baseline.

## 8.2 Sanitation and Hygiene

Regarding sanitation and hygiene, like the safe drinking water, only the effect of the program on a few indicators is presented here.

- 
- **The LWIL Margibi project helped promote household use of latrines, but less so in eliminating open defecation.** The proportion of households using latrines was larger (29.8%) at final evaluation relative to the baseline (8%). This indicates that a higher proportion of households have no access to latrines and in all likelihood practice open defecation. When asked to report what has happened to the number of people practicing open defecation in their community, about 90% of household respondents reported there were

members of the communities who used the bush to defecate, and 46% reported some households with access to toilets continued to practice open defecation.

- **The presence of a hand washing facility was limited to very few households despite the efforts by the program to promote the practice.** Only 5.2 percent, at final evaluation, of all households had a hand washing station for use after using the latrine.
- **The LWIL Margibi project had a noticeable impact on the incidence of diarrhea in schools.** Diarrhoea was the most commonly experienced disease, reported by 82.8% of the schools surveyed at baseline. At final evaluation, diseases other than diarrhoea, dysentery, typhoid, cholera and Bilharzhia, (51.&%)were the reported as the most commonly experienced . Diarrhoea was the third most commonly reported (31%).This may be attributed to the marked improvements in access to water, sanitation and hygiene facilities in schools.
- 

### 8.3 **Equity, gender equality and other human rights.**

In this section, the effect of the program on water fetching and transporting responsibilities, and time serving. No data was collected on enrolment of girls and women's participation in alternative work, self-employment.

- **The LWIL Margibi project slightly improved the burden of fetching water borne by women and girls at final evaluation.** Women and girls bear most of the responsibility for fetching and transporting water. Women and girls were responsible for the fetching and transporting water in 78.4% of households at final evaluation against 89% at baseline. Cultural practices and traditions influence the gender roles assigned in the household.

### 8.4 **Environmental management.**

WASH programming and the environment are intrinsically linked and interdependent. Appropriate waste management systems that deal with solid waste, wastewater, hazardous waste, human waste and animal faeces can prevent severe damage to the environment and public health.

By promoting the practice of good solid waste management, access to improved sanitary facilities and others, WASH programs can have a positive environmental impact.

- **Through improved human waste management, the project made positive impact on the environment.** Improvement in access to latrines (8% to 30%) meant a better disposal of human faecal matter and a reduction in possible damage to the environment and public health. Similarly with the improvement in disposal of solid waste.

## **8.5 Church Institutions.**

Living Water International Liberia (LWIL) built strong relationships with local churches by strengthening and encouraging them towards integral mission (physical and spiritual ministry).

In supporting church ministry WaSH program, Living Water Liberia presented the gospel at every water point in communities. Other strategies included conducted various activities and trainings.

The words of the gospel can guide us on our faith journey but sharing our story touches people's hearts and helps them see their story in your story. Many Christians believe that humans were not saved in isolation but rather saved into a community. Thus, participants in the Kakata and Gibi were asked what religious activities the LWI have been involved in and how these outreaches have helped them drink from the eternal fountain of Jesus Christ.

*"Preaching of the gospel, many people knowing the truth and are going to church. Well, we need more Ministers of the gospel so we can grow in the lord. Like here, only one person can preach in this big community. Let the church focus on the maintenance of the pump too, because the church is well respected here like the pastor" (31-year-old, Male FGD Gibi Participant).*

*"Because of Living Water, many people have come to the church to hear the words of God and they are changing. Speaking to you am pastor Yarkpawolo head of this church. We go from door to door preaching to them telling them that the gospel is important for our lives. Yes, these methods are very good and effective. We want to complete our sanctuary is completed; many people will come" (35-year-old Male Kakata Pastor).*

## **PART III: CONCLUSIONS, LESSONS AND RECOMMENDATIONS**

### **CONCLUSIONS, LESSONS AND RECOMMENDATIONS**

Conclusions, lessons and recommendations are based on water access, sanitation & hygiene and Christian witness. This is helpful in learning lessons as input into future programming.

The Margibi WASH program was effective in delivering the water and sanitation infrastructure capacity but less so in building community capacity. The functionality of the water and sanitation infrastructure capacity was reduced mainly because of breakdowns, as revealed by results from the qualitative study. The program enhanced the community institutional and management capacity particularly the Water User Committee, which had modest performance in managing and sustaining the WaSH facilities and services.

The Margibi WASH program helped promote latrine use, thereby contributing to the decrease in open defecation. The access to the latrines and hand washing was far below the expected coverage.

The program was also modestly effective in reducing the burden of fetching water on women and girls.

It has built a foundation for sustainability and expansion.

Going forward, the program:

#### **Key lessons:**

- (i) COVID-19 has negatively affected the income levels of most people including the most vulnerable in society.
- (ii) Behavioral remains a challenge. Hand washing and responsibility for fetching water are examples in this regard.
- (iii) LWIL should consider stronger collaboration with key stakeholders to ensure benefits of the project are sustained
- (iv) The evaluation design used in this impact study is the non-experimental design. Its design does not support a comparison or control group, that does not have access to the interventions. The only comparison possible in this report, as is apparent, is between the baseline (before) and final evaluation (after).

**Recommendation:**

- (i) The most ideal time of conducting an evaluation soon after the end of the program. However, the COVID-19 pandemic had implications on the implementation of Margibi WPA programs and activities. While the project adapted and enabled activities to continue, delays were experienced on many aspects including the rescheduling of the evaluation study. The study was undertaken two years after the completion of the project rather than at program closure.
- (ii) For future programming, LWIL should consider using quasi-experimental design. The quasi-experimental design has a higher internal validity than the non-experimental type of research. This design involves a comparison or control group, that does not have access to the interventions.
- (iii) For future programming, the LWIL should support the development and implementation of an effective MEL system in order to ensure regular and pertinent data collection, analysis, reporting and feedback especially on Margibi WPA community WASH results.
- (iv) The qualitative report indicates that respondents were quick to point out the challenges faced in the shortage of safe drinking water and lack of treatment for the water. The LWI-L program should consider investing in long-term sustainability. Capacity to sustain water systems against future breakages, replacement or damage should be a priority.
- (v) For the future, LWIL should consider including sectors such as livelihoods, environmental or climate change. These should be promoted in future WASH activities. Each perspective opens up new impacts and programmatic opportunities.
- (vi) Behavioral change is an important component of Water, Sanitation, and Hygiene (WASH) programs to improve household's hygiene and sanitation practices. The WASH education campaigns can be conducted in collaboration with the implementing partners and stakeholders. WASH education or promotion can create demand for sanitation and thereby increasing access. Further, for future programming, the LWIL WASH program can encourage, partner and support local business participation in WASH services. If run as a business, the investment costs can be recovered as revenue. This would contribute towards ensuring financial sustainability of the services. add recommendations for improving S&H access and behavior here

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